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SFAS 123 "Accounting for Stock-Based Compensation"

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by

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ABSTRACT(100-200 WORDS):

Statement of Financial Accounting Standards (SFAS) No. 123 is a new standard issued that introduces a fair method of accounting for stock-based compensation. The fair value can be determined using a pricing model, such as the Black-Scholes Model. Entities have the option to adopt SFAS 123 or continue using the intrinsic value method, prescribed by APB No. 25. If entities choose to continue using APB No. 25, they must disclose the pro forma effects of net income and earnings per share as if the fair value method had been used. SFAS 123 is effective for fiscal years that begin after December 15, 1995.

The paper first discusses the implications of SFAS 123 and APB NO. 25. A sample of thirty companies in the manufacturing and computer industries is then analyzed to determine the compliance with the new standard.

INTRODUCTION

Statement of Financial Accounting Standard Number 123 establishes a fair value based method of accounting for stock based compensation plans. The focus of this paper will be on stock options. SFAS 123 encourages entities to account for stock based compensation with its employees by adopting the fair value method in place of APB Opinion No. 25, *Accounting For Stock Issued To Employees*. Transactions in which goods or services are received in exchange for the issuance of equity instruments that occur with non-employees must be accounted for using the fair value method. In accordance with SFAS 123, compensation cost related to stock options is measured at the grant date based on the value of the option and is recognized over the service period, which is usually the vesting period (FASB 1). The vesting period refers to earning rights to an employee's award of stock options. The award becomes vested at the date that the employee's right to receive shares is no longer contingent on remaining in the service of the employer (137).

SCOPE

SFAS 123 applies to all transactions in which an entity grants shares of its common stock, stock options, or other equity instruments to its employees, except for equity instruments held by an employee stock ownership plan (3). SFAS 123 uses the term fair value for assets and financial instruments with the same

meaning as stated in FASB Statement Number 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of." Statement 121 says the fair value of an asset is:

> "...the amount at which the asset could be bought or sold in a current transaction between willing parties, that is, other than in a forced or liquidation sale. Quoted market prices in active markets are the best evidence of fair value and shall be used as the basis for the measurement, if available. If quoted market prices are not available, the estimate of the fair value shall be based on the best information available in the circumstances. The estimate of the fair value considers prices for similar assets and the results of valuation techniques to the extent that they are available in the circumstances. Examples of valuation techniques include the present value of estimated expected future cash flows using a discount rate commensurate with the risks involved, option pricing models, matrix pricing, option adjusted spread models, and fundamental analysis (FASB 7).

If the fair value of the goods or services received is not able to be measured accurately, SFAS 123 requires that the measure of the cost of goods or services acquired in a transaction with other than employees be based on the fair value of the equity instrument issued(FASB 4).

MEASUREMENT METHODS

FAIR VALUE METHOD

The fair value method requires compensation cost to be measured at the grant date based on the fair value of the award. The fair value of a stock option granted by a public entity is

estimated using an option pricing model that takes into consideration several factors. These factors include:

- The exercise price
- The expected life of the option
- The current price of the underlying stock
- The stock's expected volatility
- The expected dividends on the stock
- The risk free interest rate for the expected term of the option as of the grant date.

The exercise price and the current market price of the stock should be readily available. However, the four remaining factors are based on assumptions. The FASB provides guidance on these assumptions. The expected life of the option will generally be shorter than its maximum life. The interest free rate to be used is "the rate currently available for zero-coupon U.S. Government issues with a remaining term equal to the expected life of the options that are being valued." The expected dividend yield should reflect the yield anticipated over the life of the option. A company may use its historical average dividend yield adjusted for expected future differences from past experience. A company that has not announced its intention to pay future dividends may use an expected dividend yield of zero. Finally, the volatility used should reflect the yield anticipated over the life of the option(7).

One of the more common option pricing models used is the Black-Scholes model. This model assumes that the stock prices follow the skewed lognormal distribution. This assumption means the percentage change in stock prices follow the bell curve normal distribution. By expressing the problem in terms of the stock's rate of return, Black and Scholes were able to use common statistics formulas for normal probability distributions to solve stock option pricing problems(Coller 28).

If it is not possible to reasonably estimate the fair value of an option at grant date, compensation cost should be measured based on the stock price and other factors at the first date that it is possible to estimate these variables. Usually, it is the date when the number of shares to which an employee is entitled and the exercise price are known(FASB 7).

INTRINSIC VALUE MEHTOD

Under the Intrinsic Value Method, prescribed by APB No 25, compensation cost is the excess of the market price of the stock at grant date or other measurement date over the amount an employee must pay to acquire the stock. The grant date is the date which an employer and employee have a mutual understanding of the terms of the stock based compensation award. Two types of stock option plans are incentive stock options and non-qualified stock options.

Incentive stock options benefit individuals because they pay no tax on the difference between the market price and the option

price when the stock is purchased. When the shares are sold, the individual pays tax on that difference, thus deferring the tax. From the company perspective, however, there is no tax deduction allowed. Companies issue incentive stock options to attract high quality executives. Smaller companies that have little cash and income often use incentive stock options because the tax deduction would not benefit them greatly.

Under incentive stock options, the tax laws require that the market price and the option price be the same at the grant date. Therefore, there is no compensation cost because there is no excess market price over option price.

Under non-qualified stock option plans, executives recognize taxable income for the difference between market price and option price when the options are exercised. Companies are allowed a deduction equal to the difference between the market price and option price at the date the employee purchases the stock. The compensation cost is the difference between the market price and the option price at the grant date. The cost is then allocated over the periods benefited(AICPA 9).

EXAMPLE

Assume ABC Corporation approves a plan to grant the company's four executives stock options to purchase 3000 shares each of the company's $1 par value stock. Assume that the options are granted January 1, 1998 and may be exercised anytime within the next five years. The option price is $50 and the market price is $60. The expected period of benefit is three years, starting with the grant date.

Compensation expense under the intrinsic value method would be computed as follows:

Market value of 12,000 shares @ $60	720,000
Option price of 12,000 shares @ $50	(600,000)
Total Compensation Expense	120,000

Assume that under the fair value method compensation expense is determined to be $210,000 using the Black-Scholes model. The journal entries would be computed as follows:

	Intrinsic Value Method		Fair Value Method	
Grant Date (1/1/98)	None		None	
12/31/98	Compensation Exp. 40,000		Compensation Exp. 70,000	
	Paid in Capital-Stock Options	40,000	Paid in Capital-Stock Options	70,000
	(120,000 / 3 years)		(210,000 / 3 years)	

If 30% or 3600 of the 12,000 were exercised on January 1, 2001 the following journal entry will be recorded:

Intrinsic Value Method			Fair Value Method		
Cash	180,000		Cash	180,000	
Paid in Capital	36,000		Pd in Capital	63,000	
Common Stock		3,600	Common Stock		3,600
Pd In Capital-Excess Par		212,400	Pd In Capital-Excess Par		239,400

If the remaining stock options are not exercised, the balance should be transferred to the Paid-In-Capital from expired stock options account.

Intrinsic Value Method			Fair Value Method		
1/1/02 Pd In Capital-Stock Options	84,000		Pd In Capital-Stock Options	140,000	
Pd in Cap from expired stock options		84,000	Pd in Cap from expired stock options		140,000

However, if stock options are forfeited because an employee fails to satisfy a service requirement, it should be treated as a change in estimate.

For example, if one executive leaves: 3000 * 10 = 30,000

Paid in Capital-Stock Options	30,000	
Compensation Expense		30,000

DISCLOSURE

The Financial Accounting Standards Board encourages entities to adopt SFAS 123. However, entities are still able to use APB 25. Regardless of the method used, the following disclosures are required:

> The number and weighted average exercise price of options for each of the following groups of options.
>
> A 1. Those outstanding at the beginning of the year
> 2. Those outstanding at the end of the year
> 3. Those exercisable at the end of the year and those
> 4. Granted
> 5. Exercised
> 6. Forfeited or
> 7. Expired during the year
>
> B. The weighted average grant date fair value of options granted during the year. The exercise prices of some options differ from the market price of the stock on the grant date, weighted average exercise prices and weighted average fair values of options shall be disclosed separately for options whose exercise price 1) equals 2)exceeds or 3) is less than the market price of the stock on the grant date.
>
> C. The number and weighted average grant date fair value of equity instruments other than options, for example, shares of nonvested stock, granted during the year.
>
> D. A description of the method and significant assumptions used during the year to estimate the fair value of options, including the following weighted-average information 1) risk free interest rate 2) expected life 3) expected volatility and 4) expected dividends.
>
> E. Total compensation cost recognized in income for stock-based employee compensation awards

F. The terms of significant modifications of outstanding awards.(FASB 14&15)

Additionally, an entity that continues to use APB 25, for which an income statement is provided must disclose the pro forma net income and pro forma earnings per share as if the fair value method had been used to account for compensation cost unless the amounts are not material. SFAS 123 is effective for transactions entered into in fiscal years that begin after December 15, 1995(FASB 17).

DEBATE ON SFAS 123

Accounting for stock based compensation is a controversial subject for both public and private entities. APB No. 25 has been heavily criticized for producing unusual results and lacking the framework to help solve problems for options with new features. Some critics argue that long-term fixed options grated to employees are valuable instruments, even though they carry restrictions that are not usually present in other stock options. Financial statements prepared in accordance with APB No 25 do not recognize that value. Therefore, the financial statements are less credible than they could be. Additionally, company's that use fixed employee options are not comparable to those entities that do not make use of fixed options(23).

Due to the heavy criticism of APB No 25, in March 1984, the FASB put it on their agenda to reconsider accounting for stock based compensation. In June 1993, the FASB issued an exposure

draft on accounting for stock based compensation. The recommendations included that stock options issued to employees are compensation expense that should be recognized in the financial statements because nonrecognition of the compensation cost would result in violation of credibility and representational faithfulness. Furthermore, the exposure draft required that sophisticated pricing models be used, such as the Black-Scholes model, to determine the fair value of stock options. Requiring all entities to follow the fair value based method would have resulted in accounting for stock based employee compensation that was consistent with accounting for all other forms of compensation and "leveled the playing field" between fixed and variable awards (24).

However, the exposure draft was extremely controversial. The main debate was whether compensation cost should be recognized for fixed terms that have an exercise price that equals, exceeds, or is less than the market price at the grant date. Those who opposed the proposal gave various reasons for being against cost recognition. One of the more common reasons was that stock options could not be measured with sufficient reliability. Some opponents think that pricing models, such as the Black-Scholes model overstate the value of options used for compensation. The reason is that the options granted to executives are not marketable and can not be traded. Therefore, if there is a lack of marketability, the option issued would be

subject to a significant discount. The FASB has attempted to solve this problem by allowing the expected life of the option instead of the stated life. However, critics say that this will lessen the overstatement of the option, but not eliminate it (King 40).

SFAS 123 can also present problems for newly formed companies who do not publicly trade their stock. The companies may be short on cash and might issue options to employees instead of making cash payments. An independent appraisal of the company may be required to value the options. This process can be costly and might not be practical in the circumstances. Also, if the companies give options to non-employees, such as consultants and lawyers, the transactions will have to be accounted for using the fair value method, which will result in recognition of compensation expense (Steinberg 52).

The debate was so divisive that it even threatened the FASB's relationship with some constituents. The FASB still believes that financial statements would be more relevant and representational faithful if the fair value method was used. However, in December 1994, the FASB decided that requirement was not attainable because the consideration of issues that usually leads to improved financial reporting was no longer present. Therefore, the Board decided to encourage, but not require recognition of compensation cost based upon the fair value of stock options.

The FASB did decide to require the disclosure of the pro forma effects of companies that continue to use APB 25. By requiring companies to disclose the pro forma effects, the FASB believes that at least some of the original objectives will be met (FASB 24).

THE SAMPLE-GATHERING DATA

The sample included thirty companies in total, fifteen from the manufacturing industry and fifteen from the computer industry. I acquired the data from CD-ROM Disclosure Software. The software contains companies whose common stock is publicly traded. It listed 39 companies in the manufacturing industry and 128 companies in the computer industry that mentioned the words SFAS 123 in the company footnotes. I randomly chose 15 companies in each industry.

Further selection was required to show companies that have chosen to continue using APB No. 25 disclosed the pro forma effects of SFAS 123 on net income and earnings per share. I excluded companies that did not disclose the pro forma effects of SFAS 123 due to immateriality.

Before I started to gather data, I used various items to compare the companies. The final list included the following items:

- Company Name
- Industry
- Use of SFAS 123 or APB No. 25
- Number of lines in footnote related to SFAS 123
- Which paragraph SFAS 123 was specified in

ANALYSIS

All of the companies in both the manufacturing and computer industries have chosen to continue using ABP No. 25 with pro forma disclosure of net income and earnings per share.

Companies were not consistent with the paragraph number they disclosed the pro forma effects of SFAS 123 in. The most common number in both industries was paragraph 12. The computer industry averaged 21 lines in their footnotes related to SFAS 123 and the manufacturing industry averaged 20 lines (see tables 5 & 6).

In the manufacturing industry, Labor Ready Incorporated had the biggest decline in net income as a result of the fair value method with a 51% change from $724,000 to $352,000. In the computer industry, Applied Voice Technology had the biggest decline in net income as a result of the fair value method with a 59% change from $1,934,000 to $793,000(see tables 2 & 4).

Likewise, Labor Ready had the largest decline with a 50% change in EPS from .06 to .03 in the manufacturing industry. Additionally, Applied Voice Technology had the largest decline of 52% from .33 to .16 in the computer industry (see tables 1 & 3).

The fifteen companies in the manufacturing industry would have had a decline in net income due to a total compensation expense of $383,728,000, and the fifteen companies in the computer industry would have had a decline of $66,728,000 if the fair value method would have been adopted.

As shown in tables 2 & 4, it also appears that the majority of the companies that are affected most by SFAS 123 are companies with the smallest amount of net income. Conversely, companies that had a larger net income were not as affected by SFAS 123. In addition, the fifteen companies in the computer industry proportionately have more compensation expense than the fifteen companies in the manufacturing industry.

Although companies do not have to take the direct hit of compensation expense, it is important for them to disclose this information in the footnotes so users are able to see what impact stock options issued to executives have on the company.

CONCLUSION

Statement of Financial Accounting Standards No. 123 defines a fair value based method for accounting for stock options. The fair value is determined using an option pricing model, such as the Black-Scholes model.

However, it also allows entities to continue to use the intrinsic value based method prescribed by APB No. 25. SFAS 123 is effective for fiscal years that begin after December 15,1995.

Entities electing to remain with APB No. 25 must make pro forma disclosures of net income and, if presented, earnings per share as if the fair value method of accounting had been used. As reflected in the sample, the majority of companies have opted to continue using APB 25 with pro forma disclosures of net income and earnings per share.

TABLE 1

COMPUTER INDUSTRY

COMPANY NAME	EPS	PRO FORMA EPS	VARIANCE	PERCENTAGE CHANGE
Titan Corp	-0.27	-0.3	0.03	-11%
IBM	10.24	9.97	0.27	3%
New York Times Co	0.87	0.79	0.08	9%
Meta Group Inc	0.45	0.3	0.15	33%
Merisel Inc	-4.68	-4.7	0.02	0%
ESS Technology Inc	0.52	0.46	0.06	12%
Equitrac Corp	0.52	0.48	0.04	8%
Data Dimensions Inc	0.27	0.25	0.02	7%
Chips & Technologies	1.18	0.99	0.19	16%
Ascend Communications	0.89	0.54	0.35	39%
Applied Voice Technology	0.33	0.16	0.17	52%
Ampex Corporation	0.28	0.26	0.02	7%
SBS Technologies Inc	0.97	0.9	0.07	7%
Prologic Management Systems	-0.76	-0.77	0.01	-1%
Proxim Inc	0.71	0.52	0.19	27%

TABLE 2

COMPUTER INDUSTRY

COMPANY NAME	NET INCOME	PRO FORMA NET INCOME	VARIANCE	PERCENTAGE CHANGE
Titan Corp	-3,378	-3,795	417	-12%
IBM	5,409	5,267	142	3%
New York Times Co	84,534	76,889	7,645	9%
Meta Group Inc	3,626	2,396	1,230	34%
Merisel Inc	-140,375	-140,994	619	0%
ESS Technology Inc	21,626	18,902	2,724	13%
Equitrac Corp	1,882	1,713	169	9%
Data Dimensions Inc	947	890	57	6%
Chips & Technologies	25,750	21,467	4,283	17%
Ascend Communications	113,111	68,266	44,845	40%
Applied Voice Technology	1,934	793	1,141	59%
Ampex Corporation	12,741	11,616	1,125	9%
SBS Technologies Inc	3,581	3,111	470	13%
Prologic Management Systems	-1,763	-1,798	35	-2%
Proxim Inc	6,654	4,828	1,826	27%

TABLE 3

MANUFACTURING INDUSTRY

COMPANY NAME	EPS	PRO FORMA EPS	VARIANCE	PERCENTAGE CHANGE
DDL Electronics Inc.	0.09	0.07	0.02	22%
Electro Scientific Industries Inc	1.87	1.86	0.01	1%
Halter Marine Group Inc	0.88	0.87	0.01	1%
Baldwin Piano & Organ Co.	0.6	0.55	0.05	8%
Computational Systems Inc	0.9	0.82	0.08	9%
Carbide Graphite Group Inc	2.07	2.04	0.03	1%
U.S. Data Corp.	-0.1	-0.11	0.01	-10%
UNIT Instruments Inc	1.09	1	0.09	8%
Radisys Corp	1.3	1.19	0.11	8%
KLA Tencor Corp	2.34	2.27	0.07	3%
Honeywell Inc	3.18	3.1	0.08	3%
Micron	2.76	2.6	0.16	6%
Intermagnetics General Corp	0.21	0.15	0.06	29%
Labor Ready Inc.	0.06	0.03	0.03	50%
Kevco Inc	1.6	1.52	0.08	5%

TABLE 4

MANUFACTURING INDUSTRY

COMPANY NAME	NET INCOME	PRO FORMA NET INCOME	VARIANCE	PERCENTAGE CHANGE
DDL Electronics Inc.	1,598	1,339	259	16%
Electro Scientific Industries Inc	16,082	15,831	251	2%
Halter Marine Group Inc	16,116	15,912	204	1%
Baldwin Piano & Organ Co.	2,056	1,874	182	9%
Computational Systems Inc	4,534	4,033	501	11%
Carbide Graphite Group Inc	18,302	18,023	279	2%
U.S. Data Corp.	-1,056	-1,220	164	-16%
UNIT Instruments Inc	4,778	4,481	297	6%
Radisys Corp	9,546	8,533	1,013	11%
KLA Tencor Corp	196,634	189,331	7,303	4%
Honeywell inc	402.7	392.6	10	3%
Micron	593.5	559.8	34	6%
Intermagnetics General Corp	2,615	1,886	729	28%
Labor Ready Inc.	724,283	352,222	372,061	51%
Kevco Inc	8,863	8,422	441	5%

TABLE 5

COMPANY NAME	INDUSTRY	USE OF APB 25 OR SFAS 123	PARAGRAPH NUMBER IN FOOTNOTES	LINES IN FOOTNOTE
Proxim Inc	Computer	SFAS 123	5	21
Prologic Management Systems	Computer	SFAS 123	12	21
SBS Technologies Inc.	Computer	SFAS 123	10	17
Ampex Corporation	Computer	SFAS 123	14	22
Applied Voice Technology	Computer	SFAS 123	3	19
Ascend Communications Inc.	Computer	SFAS 123	5	28
Chips and Technologies	Computer	SFAS 123	4	22
Data Dimensions Inc	Computer	SFAS 123	9	20
Equitrac Corporation	Computer	SFAS 123	9	15
ESS Technology	Computer	SFAS 123	5	31
Merisel Inc	Computer	SFAS 123	11	18
Meta Group Inc	Computer	SFAS 123	10	24
New York Times Inc	Computer	SFAS 123	12	24
Titan Corporation	Computer	SFAS 123	12	12
IBM	Computer	SFAS 123	15	24

TABLE 6

COMPANY NAME	INDUSTRY	USE OF APB 25 OR SFAS 123	PARAGRAPH NUMBER IN FOOTNOTES	LINES IN FOOTNOTES
Micron	Manufacturing	SFAS 123	12	28
Labor Ready Inc	Manufacturing	SFAS 123	16	18
Kevco Inc	Manufacturing	SFAS 123	12	10
Intermagnetics General Corp	Manufacturing	SFAS 123	5	21
DDL Electronics Inc	Manufacturing	SFAS 123	6	18
Electro Scientific Industries Inc	Manufacturing	SFAS 123	12	22
Halter Marine Group Inc	Manufacturing	SFAS 123	8	22
Baldwin Piano & Organ Co.	Manufacturing	SFAS 123	12	18
Computational Systems Inc	Manufacturing	SFAS 123	7	13
Sarbide Graphite Group Inc	Manufacturing	SFAS 123	11	12
U.S. Data Corp	Manufacturing	SFAS 123	4	25
UNIT Instruments Inc	Manufacturing	SFAS 123	9	19
Radisys Corp	Manufacturing	SFAS 123	6	27
KLA Tencor Corp	Manufacturing	SFAS 123	8	32
Honeywell Inc	Manufacturing	SFAS 123	15	22

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